

#### S4 APPENDIX Timing of publication and retraction for papers published on preprint servers

(a) Timing of publication and retraction for papers published on preprint servers (bioRxiv, medRxiv, SSRN) and in academic journals (based on data available at 19<sup>th</sup> December 2020)

| Paper                   | Publication date (2020) | Retraction date (2020)                      | Time to retraction | Source  | Journal publisher |
|-------------------------|-------------------------|---|--------------------|---------|-------------------|
| Adjodah et al. [1]      | 23 Oct                  | 4 Nov                                       | 12 days            | medRxiv | -                 |
| Alhowary et al. [2]     | 14 Jun                  | not reported <sup>a</sup>                   | unclear            | Journal | Elsevier          |
| An et al. [3]           | not reported            | not reported                                | unclear            | Journal | Elsevier          |
| Argyropoulos et al. [4] | 7 Jul                   | not reported <sup>a</sup>                   | unclear            | Journal | Elsevier          |
| Bae et al. [5]          | 6 Apr                   | 2 Jun                                       | 57 days            | Journal | ACP Journals      |
| Beato-Vibora [6]        | 12 May                  | 27 July                                     | 76 days            | Journal | Mary Ann Liebert  |
| Bility et al. [7]       | 8 Oct                   | 5 Nov <sup>a</sup><br>("temporary removal") | 28 days            | Journal | Elsevier          |
| Cercy [8]               | 26 May                  | 21 Jun                                      | 26 days            | medRxiv | -                 |
| Chen et al. [9]         | 27 Jan                  | 28 Jan                                      | 1 day              | bioRxiv | -                 |
| Chen et al. [10]        | 15 Apr                  | unclear (Sep issue of journal)              | unclear            | Journal | Wiley             |
| Chu et al. [11]         | 5 Apr                   | 15 Apr                                      | 10 days            | bioRxiv | -                 |
| Davido et al. [12]      | 11 May                  | 20 May                                      | 9 days             | medRxiv | -                 |
| Dumantepe et al. [13]   | 24 Aug                  | not reported                                | unclear            | Journal | Elsevier          |
| El Assaad et al. [14]   | 27 May                  | not reported                                | unclear            | Journal | Elsevier          |
| Etemadifar et al. [15]  | 15 Sep                  | 8 Oct <sup>a</sup>                          | 23 days            | Journal | Elsevier          |
| Fioranelli et al. [16]  | 16 Jul                  | 24 Jul <sup>a</sup>                         | 8 days             | Journal | Biolife           |
| Gaibazzi et al. [17]    | 17 May                  | 20 Jun                                      | 34 days            | medRxiv | -                 |
| Gaibazzi et al. [18]    | 15 May                  | 13 Jun                                      | 29 days            | medRxiv | -                 |
| Hedima et al. [19]      | 19 Apr                  | not reported <sup>a</sup>                   | unclear            | Journal | Elsevier          |
| Huang & Zhao [20]       | 14 Apr                  | 23 Oct <sup>a</sup>                         | 192 days           | Journal | Taylor & Francis  |
| Huang & Zhao [21]       | 14 Apr                  | 17 Nov <sup>b</sup>                         | 217 days           | Journal | Elsevier          |
| Irshad et al. [22]      | 10 Aug                  | not reported                                | unclear            | Journal | Wiley             |
| Kanwar [23]             | 7 Oct                   | not reported <sup>a</sup>                   | unclear            | Journal | ATS Journals      |
| Karami et al. [24]      | 11 Apr                  | 2 May <sup>a</sup>                          | 21 days            | Journal | Elsevier          |
| Kim et al. [25]         | 18 May                  | 14 Jun                                      | 27 days            | medRxiv | -                 |
| Kumar [26]              | Mar/Aug                 | not reported                                | unknown            | Journal | MAT Journals      |
| Luowei et al. [27]      | early Mar <sup>a</sup>  | mid Apr <sup>a</sup>                        | unclear            | Journal | [Chinese]         |

| Paper  | Publication date (2020)                  | Retraction date (2020)                     | Time to retraction | Source  | Journal publisher                   |
|--|--|--|--------------------|---------|-------------------------------------|
| Maltezou et al. [28]   | 22 Oct                                   | Unclear (“temporary removal”) <sup>c</sup> | unclear            | Journal | Healthcare Infection Society        |
| Mehra et al. [29]  | 22 May                                   | 5 Jun                                      | 14 days            | Journal | Elsevier                            |
| Mehra et al. [30]  | 1 May                                    | 4 Jun                                      | 34 days            | Journal | Massachusetts Medical Society       |
| Mulvey et al. [31]   | 25 Apr                                   | 22 Jun <sup>a</sup>                        | 58 days            | Journal | Elsevier                            |
| Nouvier et al. [32]  | 13 Apr                                   | 20 Apr <sup>a</sup>                        | 7 days             | Journal | <a href="#">RDPLE</a>               |
| Parves et al. [33]   | 12 Apr                                   | 16 Apr                                     | 4 days             | bioRxiv | -                                   |
| Patel et al. [34]  | <a href="#">“early Apr”</a> <sup>a</sup> | <a href="#">“end of May”</a> <sup>a</sup>  | unclear            | SSRN    | -                                   |
| Patel et al. [35]  | not reported                             | not reported                               | unknown            | SSRN    | -                                   |
| Pradhan et al. [36]  | 31 Jan                                   | 2 Feb                                      | 2 days             | bioRxiv | -                                   |
| Raharusuna et al. [37]   | not reported                             | not reported                               | unknown            | SSRN    | -                                   |
| Singh et al. [38]  | 8 Jul                                    | 14 Sep                                     | 68 days            | Journal | Korean Society of Anesthesiologists |
| Siyu et al. [39]   | 25 Feb                                   | 7 Mar                                      | 11 days            | medRxiv | -                                   |
| Vavougios [40]   | 15 Jul                                   | not reported                               | unclear            | Journal | Elsevier                            |
| Wang [41]  | unclear                                  | not reported                               | unclear            | Journal | [Chinese]                           |
| Wang et al. [42]   | 7 Apr                                    | 10 Jul                                     | 94 days            | Journal | Nature Publishing Group             |
| Wei et al. [43]  | 15 May                                   | not reported                               | unclear            | Journal | Elsevier                            |
| Yang et al. [44]   | 11 Feb                                   | 21 Feb                                     | 10 days            | medRxiv | -                                   |
| Zhang et al. [45]  | 16 May                                   | not reported <sup>a</sup>                  | unclear            | Journal | Elsevier                            |
| Zhuang et al. [46]   | 5 Mar                                    | “a few days later” <sup>a</sup>            | unclear            | Journal | [Chinese]                           |
| <sup>a</sup> from Retraction Watch <sup>b</sup> from Pubmed <sup>c</sup> article reinstated by 6 <sup>th</sup> January 2021 (see Appendix 2) |  |  |                    |         |                                     |

#### S4 APPENDIX (b) Summary of time (days) from publication to retraction

| Summary statistics                   | Preprint servers |               |            |               | Journals (n=31) |
|--------------------------------------|------------------|---------------|------------|---------------|-----------------|
|                                      | bioRxiv (n=4)    | medRxiv (n=8) | SSRN (n=3) | Total (n=15)  |                 |
| Number of papers with available data | 4                | 8             | 0          | 12            | 14              |
| Median                               | 3                | 19            | no data    | 10.5          | 45.5            |
| Range                                | 1-10             | 9-34          | no data    | 1 to 34       | 7-217           |
| Interquartile range                  | 1.75 to 5.5      | 10.75 to 27.5 | no data    | 7.75 to 26.25 | 21.5 to 74      |

|   |   |   |   |   |    |
|---|---|---|---|---|----|
| <b>Missing data<br/>(retraction and/or<br/>publication date<br/>not reported)</b> | 0 | 0 | 3 | 3 | 17 |
|---|---|---|---|---|----|

#### **S4 APPENDIX (c) Publishers of the 31 articles that were retracted from scientific journals**

| <b>Journal publisher</b>  | <b>Total number of<br/>retracted articles<br/>(n=31)</b> | <b>Articles with unclear<br/>reason for retraction<br/>(n=12)</b> | <b>Articles with unclear<br/>date of retraction<br/>(n=17)</b> |
|---|--|---|--|
| Elsevier  | 15 (48%)   | 7 [2, 7, 13, 15, 40, 43, 45]                                      | 9 [2-4, 13, 14, 19, 40, 43, 45]                                |
| Chinese publishers <sup>a</sup>   | 3 (7%)   | 2 [27, 41]  | 3 [27, 41, 46]   |
| Wiley   | 2  | 0   | 2 [10, 47]   |
| ACP Journals  | 1  | 0   |  |
| ATS Journals  | 1  | 1 [23]  | 1 [23]   |
| Biolife   | 1  | 0   |  |
| Hospital Infection Society  | 1  | 1 [28]  | 1 [28]   |
| Korean Society of<br>Anaesthesiologists   | 1  | 0   |  |
| Mary Ann Liebert  | 1  | 0   |  |
| Massachusetts Medical<br>Society (NEJM)   | 1  | 0   |  |
| MAT Journals  | 1  | 1 [26]  | 1 [26]   |
| Nature publishing Group   | 1  | 0   |  |
| <a href="#">RDPLF</a>   | 1  | 0   |  |
| Taylor & Francis  | 1  | 0   |  |
| <sup>a</sup> Three different publishers, which we have not identified separately here, whose journals publish primarily in the Chinese language |  |   |  |

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